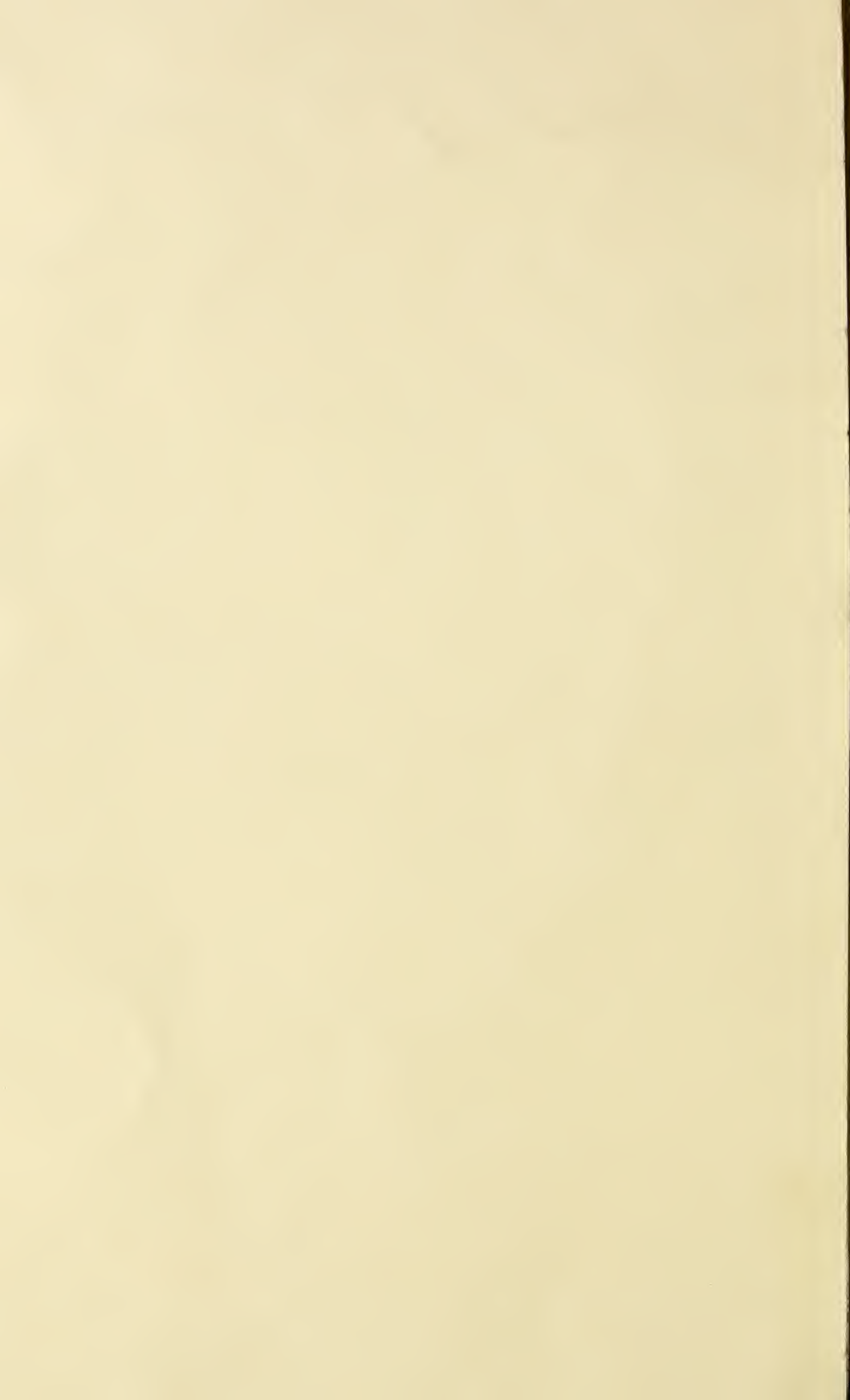


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



The Agricultural Student.

Published monthly by

The Agricultural Student Publishing Co.

TERMS.

One Year,	\$.50
One-Half Year,	.30
Single Copies,	.05

While this paper is published with the consent and approval of the President of the University, and the officers of the School of Agriculture, the editors of this paper are alone responsible for the statements in all unsigned articles.

Address all communications to the Editor and Manager, Agricultural Student, Columbus, Ohio.

Entered at the Postoffice, Columbus, O., as second class matter.

BOARD OF EDITORS.

CHARLES W. BURKETT,	Editor and Manager
JOHN F. CUNNINGHAM,	Ass't Manager
MURRAY M. RARICK,	Circulation Manager
JOHN HYDE DUNLAP,	Exchange Editor
R. W. DUNLAP,	Alumni Editor
D. A. CROWNER,	Dairy Editor
FRANK RUHLEN,	Swine Editor

THE Hysell Bill has passed and is now a law. This law increases the state appropriation to the University from one-twentieth to one-tenth of a mill on the tax duplicate. Undoubtedly one of the first acts that will result from this increased appropriation will be the erection of an agricultural building.

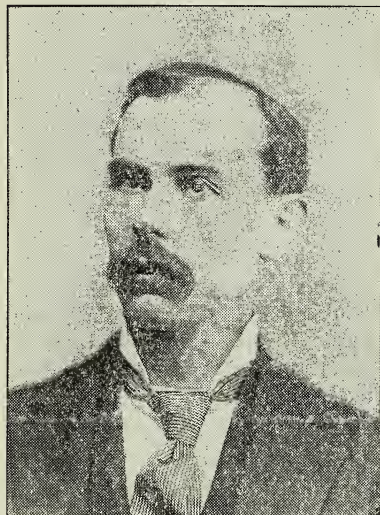
It is very gratifying to note the manner in which the members of the Student Union are taking hold of the work proposed for this year. About two weeks ago 200 circular letters were sent out asking what lines of work the members could carry on. Answers have been coming in rapidly every day with favorable and enthusiastic replies. Many farmers' names have also been sent in, to which special circulars have already been mailed. We wish we had unlimited means for the work. As it is we almost fear we will not be able to conduct all the work the members wish to do.

To those who will carry on the experiments, we want to say that the work will be more in a practical way than otherwise. Follow your own methods of farming, together with the instructions given by the directors. While we would like exact results we can not expect it since many farmers have no scales to weigh their crops. An approximation then will be sufficient. But anyone can lay out a plot or measure a field. It would be of much benefit if, during the growth of the crop, written statements would be sent to the director in charge from time to time. We feel like urging this for the reason that it will benefit the experimenter and keep up his enthusiasm in the work. By these letters we will keep in touch with the work, and possibly be able to give much assistance which we could not otherwise. Let the members not expect us to reply to every letter, but communicate freely to us any valuable information.

We do not wish the farmers of the State to think we are a source of information on all things pertaining to the farm and farm crops. We know as little as they about what varieties are best for certain localities. These questions are put to the farmer for answers. We can help by directing and systematizing the work. We wish to furnish the means by which the farmers can co-operate and thus obtain results that will satisfactorily answer their inquiries.

The Union, above all things, aims to promote intelligent farming. Too many follow methods because they have always followed them. Let us adopt scientific farming. By this we mean intelligent husbandry. We mean cultivation that is carried on with an understanding of the processes of nature. Such knowledge can be had only through study and careful observation.

Lloyd Morris Bloomfield, B. Agr., Assistant in Agricultural Chemistry
Ohio State University.



Mr. Bloomfield was born February 27, 1867, near Marlboro, Stark county, Ohio. He is an only child of Alpheus L. and Elmira R. Bloomfield, and is of Scotch-English extraction on the father's side and Quaker stock on his mother's side. His mother died September, 1893. His father was a well-known farmer and one of the early breeders of Shorthorn cattle in his neighborhood. Young Lloyd's boyhood days were spent on the farm and at the district school, and later attendance at the Marlboro Union school.

The fall and winter of 1884-5 were spent in California. From 1885 until 1888 he attended school at Oberlin College, devoting most of his time to the study of chemistry and mineralogy in the private laboratory of Prof. F. F. Jewett, and the study of geology and lithology under Prof. A. A. Wright. He entered the agricultural course at the Ohio State University in the fall of 1888 and graduated in that course in 1891.

During his year of graduation and

since, he has been assistant to Prof. H. A. Weber in Agricultural Chemistry.

In May, 1895, his father died, leaving him a well improved farm and other business interests to take charge of. His connection with the University will cease in June, this year, when it is probable that he will take personal charge of his farming interests. He promises that the Student Union will be given the full benefit of his own successes and failures. Many of the experiments of the Union have already been arranged for on this farm.

At the last meeting of the Board of Control of the Agricultural Student Union of Ohio, Mr. Bloomfield was unanimously selected as director of the Agricultural Division.

He has been giving untold amount of his time to this work and a better director could not have been selected. An extreme carefulness and exactness is characteristic of all his work. Mr. Bloomfield is an active member of the Grange, Columbus Horticultural Society and the American Chemical Society. The position that he has held for the five years past has been ably filled, though it is one of the most difficult to fill at the University. He has also had the pleasure to see the department with which he has been connected increase from a few to, at times, over one hundred and fifty students. Believing that single blessedness is not the greatest happiness of life, he took unto himself a wife in form of Miss Margaret Slavons, a very charming and accomplished woman of Columbus. Mr. Bloomfield is not yet thirty years old, but is ripe in experience and in his professional work, and the many years yet before him will undoubtedly be years successfully devoted to the science of agriculture and the amelioration of the farming people.

The Agricultural Students' Union.

It is not yet a year since a few of the Agricultural students of the University met and formed what is now known as the Agricultural Students' Union. It was the thought of those forming the Union that this would be an organization that would in time greatly benefit the agricultural interests of Ohio.

In brief, the object of the Union is to inquire into all questions pertaining to the farm to which the farmer alone can give no definite answer. Such questions as those pertaining to varieties of cereals; the introduction of new crops; the care of orchard and garden; fertilizers; tillage; care of stock and all questions to which a ready and helpful answer can be given will receive our attention.

We do not expect to answer all these questions in one, ten or one hundred years, for we recognize that as the country grows older the practice of agriculture will become more intense. New questions will then arise of which we do not now think. We will meet difficulties on every hand, no doubt, but we mean to be aggressive. The first difficulty with which the Union met was that of getting money to carry on its work.

There being no money available to pay expenses last year, no results were accomplished. Through the efforts of some of its unselfish leaders the objects were stated to the public.

We are now started and this year have a small sum at our disposal, given by the Board of Trustees of the University. We have also the endorsement of our Experiment Station at Wooster. This institution feels that it can be greatly helped by our efforts and they offer to assist us.

The outline of our work is somewhat after the plan of the Experiment Station in that it has experimenters in different parts of the State. Each student that leaves the Agricultural school of the University becomes an

active member of the Union and will be expected to take up some line of work suggested by the directors of the Union. We further expect to enlist among our active members any and all intelligent farmers who will take up the work and conduct it as faithfully as may be. We are aware that we can get only practical and approximate results. Let the scientific part be carried on at our University and Experiment Station. The farmer will nevertheless be interested and benefited by our results. Those conducting the experiments will be benefited from carrying on the work, for it will teach them observation and new methods. Let me illustrate how the farmer may be helped financially. In buying fertilizers, the great bulk of material which he purchases and hauls to his farm, is nothing more than sand. He has to pay for the handling and freight of this material, of which he has an abundant supply on his farm already. Why not buy the ingredients that he wishes to use and mix them on his own farm? We are informed from experiments conducted at our Experiment Stations that there may be a great saving of money in this way, and it is very simply done.

We want our members to be educators in word and deed. It takes but one man to educate a whole township on some of these questions. Our School of Agriculture is cognizant that it can not educate all the farmers of the State. Only a small per cent. of the young farmers who go on farms annually could be accommodated at the University if they chose to come. The only way these young farmers can receive any benefits from the efforts of the State to educate them, will be through the members of this Union. We might suggest that an excellent work for the members of our Union, would be the organization of progressive reading circles in their neighborhoods. Such a circle could take up the latest Agricultural books

and questions and discuss them at their meetings held during the long winter evenings. The University would be glad to suggest a course of reading for any who so desire. It will be the constant aim of the Union to educate the farmers of Ohio. To this end it proposes to agitate the question of agriculture being taught in our common schools. We feel this to be an imperative demand and hope the State will soon come to our aid in the matter.

We know of but one other Union of this kind. It is in Ontario, Canada. Its work, though of little importance at first, has greatly increased and at present there are nearly ten thousand experiments being conducted. Their reports are published annually and are found to be valuable helps for the farmer.

The practical work of our Union will be under the management of two directors, one for Agriculture and one for Horticulture. These directors will give instructions that they find necessary, but will conform as closely as possible to general farm practice. A circular from each of these directors has been sent to the members suggesting lines of work for the coming year. They will require such work and care as any intelligent person can give. We want each member to be enthusiastic and do what he can. We hope our work will meet the hearty concurrence of the farmers of the State, for whose benefit we are laboring.

That the Dairy course is practical and profitable is testified to by the fact that the proprietor of a well known creamery is spending several weeks in the butter and cheese room, making butter and cheese, and taking notes with the regular students. He declared his intention of taking the course next year.

AGRICULTURAL STUDENT UNION.

The Plan in Arranging the Work of the Agricultural Division, as Set Forth by Director Bloomfield.

At the request of the AGRICULTURAL STUDENT, and in response to numerous inquiries that have already reached me in regard to the work prepared by this division of the Union, I will briefly describe the plan that will be followed in arranging the work, and will also answer the frequent inquiries that have been made in regard to requirements expected from those taking part in the work.

The Board of Control of the Union has specified in a general way the lines of work along which the Director is to seek for co-operative effort. We are entirely dependent upon the interest and spirit with which this work will be taken up by members of the Union and others, who are cordially invited to join hands with us, and it seems to me, therefore, but just that those signifying a willingness to take part in the work should be the final judges as to the most important work, and to decide upon what work they are best able to carry out. I shall, therefore, allow the greatest liberty with regard to choice of work and shall assume that the individual measures fairly well his own capabilities, and more certainly the facilities that are at his command for the work.

Of course certain requisites are valuable and important in the equipment of the individual, as well as in the details of the work, and are not to be overlooked or underestimated. In the case of individual requirements as well as in the details of work, it would be difficult, almost impossible, to lay down set rules. No attempt will be made to have work done under conditions and details difficult or impossible for the experimenter to fulfill.

The details of the work will vary somewhat, according to the object in view, the time he is able to give to the work, and the facilities he possesses for the work. Every applicant will be given something to do and something to report on when finished. The kind of work agreed upon and the minute details in relation to the experiment will be arranged by correspondence between the Director and those signifying a willingness to give their time and attention to the experiment, and a report of the same to the Union.

Each experimenter will receive an "Outline of Data for Field and Plot Experiments," and with this as a guide he will make his report of the experiment. In order that the Director may keep informed as to the progress of the work, the "Outline" will be issued in two parts; the first part will include directions for the construction of maps and plats of the experiment fields or plots; inquiries as to the history of the land, character of the soil, and the preparation of the ground for the seed. The second, which will be sent out as soon as answers to the inquiries of the first are received, will include requests for data concerning growth, cultivation, harvests and yields of the crops planted.

We hope to have such a number interested that we will be able to have a number of parallel experiments along various lines of work attempted, and the outlook in this regard is very encouraging.

The requirements that will be insisted upon by the Director, from those undertaking the work, will, therefore, be: First—That after the experiment is begun, it will receive the attention the details as arranged demand, until finished. Second—That the experimenter will make a careful and accurate report of the work when completed.

I trust that I have said nothing that will deter a single one of those

who have signified a desire to take part in this work, from entering upon it with the zeal and interest you have already manifested in your communications, and I hope that others will be induced to join our ranks, for I believe that no farm or farmer exists in the State of Ohio today, but what is possessed of ample appliances, and has the character and ability to render valuable service to scientific and practical agriculture, through the medium of the Agricultural Student Union.

FARM AND GARDEN EXPERIMENTS.

Some of the Requisites for Success in Experimental Work.

Abstract of an Address Before the Annual Meeting of the Agricultural Student Union, by Prof. William R. Lazenby.

After congratulating the Union upon what had been accomplished, Professor Lazenby said that if he fully understood the scope of the work proposed, a considerable share of it would be directed in the line of practical co-operative experiments.

Such being the case, he wished to call attention to some of the essentials or requisites for success in experimental work. He then spoke substantially as follows:

1. *There must be scientific as well as practical knowledge.* Many of the questions which the experimenter will be called upon to aid in answering are such as require the largest practical experience and the fullest command of science. A thorough acquaintance with the chemical and physical properties of the soil, and with the laws that govern plant and animal life, are indispensable.

Again, one should know something of what has already been done, and how best to go to work to solve the question in hand.

2. *There must be singleness of purpose.* That is, every experiment should have one distinct and definite object in view. There should be absolute simplicity of aim.

Many experiments are of little or no value, because they are so complicated.

Too much is attempted, and no satisfactory results are obtained. We should first have a clear conception of the question to be solved, and settle one point at a time.

3. *We must eliminate, as far as possible, every element of error.*

In practical experiments in agriculture and horticulture, it is impossible to secure absolute accuracy. We should not decide, however, because duplicated experiments do not exactly agree, they are of no value. When the conditions cannot be fully controlled, no two similar experiments will be likely to exactly coincide in results.

The rule of procedure should be to note carefully all the conditions and attendant circumstances. Make sure of each step as you proceed. Be particular and watchful on every side and at all times. Close every possible loophole of error. It is far better to make one experiment without any error that can be eliminated, than to make a score containing such errors.

4. *Practical experiments to be conclusive must be repeated.*

The result of a single experiment, provided due allowance is made for all modifying influences, may be useful and suggestive, but it is rarely conclusive.

Continued repetition of the same experiment, year after year, is the only way to secure results of the highest value.

We should not delude ourselves with the idea that repetition in itself insures accuracy or will take its place. Accuracy is of the first importance and then the repetition of an accurate

experiment is essential. If our methods are defective we may repeat an experiment through all time and never attain a satisfactory result.

5. *There must be absolute honesty.*

It will not do to merely think a certain result has been attained. We should know it. After carefully noting the conditions we should then announce the result just as it is, no more, no less.

Many an experiment has been started, watched for some time, then because certain indications pointed to some expected or hoped-for result, a conclusion is jumped at before the experiment is completed.

These *guess* experiments have often been reported as illustrating or proving some general law, with absolutely no foundation for the assumption.

It is these hasty and lame conclusions which make a large part of our experimental work a delusion and a snare, worse than worthless, because they are a stumbling block to all who are earnestly seeking to know the truth.

The Student Union.

BY J. S. HINE.

The Union in Ohio is the first organization of its kind in the United States, and the Horticultural Department has the honor of reporting at this time the first experiment actually carried out under the direction of said Union.

As has been stated the organization was accomplished in April, 1895.

Before arrangements could be made for such experiments as the Union desired, it was too late to plant most seeds or to test many of the insecticides. However, the Secretary, Mr. Ernest Riggs, received a few answers to circulars that he sent out. All spoke favorably of the Union, and four desired to treat seed potatoes with corrosive sublimate in order to

know its effect upon scab. The solution recommended was made by dissolving 2 ounces of corrosive sublimate in one gallon of warm water and then adding enough water to make 15 gallons in all. Cut seed potatoes were immersed in this solution for 90 minutes.

Mr. Sherman Hood, of Meander, made a careful test on three 1-34 acre plats, and sends in the following report:

The upper part devoted to the experiment is a heavy clay, ameliorated somewhat by coal ashes. On this part the scab was very bad, nearly two-thirds of the potatoes being affected. The lower half of the plat is a gravelly loam. Less than one-third of the potatoes were affected here. About 50 per cent. of the crop was scabby, with no apparent difference between the treated and untreated seed.

White Blush was the variety planted. The seed was placed in the ground April 27. Three rows were included in the experiment, the middle row being planted with treated seed, the other two with untreated. The potatoes were harvested September 18. The two untreated rows yielded 14 bushels, of which 3 bushels were small and unmarketable. The estimated yield per acre was 238 bushels.

The treated row yielded 6 bushels, of which $1\frac{1}{4}$ bushels were small and unmarketable, the estimated yield in this case being 204 bushels.

NOTES AND SUMMARY.

With treated seed the small and unmarketable product amounted to 20 4-5 per cent. of the crop; with untreated seed to 21 2-5 per cent. of the crop.

It is regretted that Mr. Hood did not estimate the untreated rows separately. In that case, perhaps, a different result would have been obtained.

Mr. Hood wrote that the treatment of the seed decreased its vitality somewhat. This may account, to some

extent, for the difference in yield. He says he wants to make further tests and is quite sure that a series of experiments may give different results.

Address of President Pfarr at the Fourth Anniversary of Townshend Agricultural Society.

We have gathered here this evening for the purpose of celebrating the fourth anniversary of the Townshend Literary Society. As an agricultural society we want to speak of agricultural interests. We have great hope in agricultural education, and we hope to make ourselves felt in the future, by elevating the industry of agriculture—the noblest calling of mankind.

Agriculture in its various branches is the foundation upon which the world moves in all other industries of life. As it prospers, so do the arts, the trades and the professions. By its prosperity, empires and nations have been called into being, and by its depression, they have been brought to ruin.

The industry of agriculture may be viewed from two points; one, in which everything is success, glory and happiness, the sense in which the poet likes to treat of it. The other is just the opposite; everything depressing and degrading. We have agriculturists representing one side as well as the other, all over this country. The first is the ideal and that for which we should strive; and the second, pessimistic, or that which degrades.

In the early centuries of the world, the agriculturist was the nobleman of the land, and no less important is his position today.

From its ranks come the men of action in all other branches of industries and professions. The history of our own nation proclaims this fact. Our greatest statesmen, our greatest financiers, our greatest philanthropists and our greatest teachers, almost

without exception, came from the farm; or whenever the nation has been called upon to defend its freedom or to preserve its integrity, from the country home have come the sturdiest warriors and the purest patriotism. And when we consider this fact, we wonder what has become of the boys that were brought up in the cities. When it comes to action, the town boys are wanting. It is on the farm, and on the farm only, where mankind is nurtured in purity of thought and freedom of action, so necessary requisite for the full development of all his mental and physical abilities. It is there, too, along the running rivulets of the hillside, or amidst the ripening fields of the prairies, that the purest thoughts and rarest gems of literature have been written. There is no other business or profession in which there is more pleasure and time for recreation than on the farm, if you rightly employ your time. It is there you get the most wholesome food and the purest air that all nature furnishes, and which is so necessary to good health, the greatest blessing God gave to man. It is there, more than in any other profession or business, you are able to study art, nature and science, and apply the useful knowledge thus gained, in helping nature to produce her most beautiful reward, and assist you in your daily labors.

While what I have just said is quite true, the majority of farmers do not find it so in practical farm life; many of them find little comfort or happiness, but are they not, as a whole, to blame themselves? They are yet too independent to co-operate. No industry, no business, no society, is prosperous unless there is co-operation among those who participate in such organizations. In agriculture there is no union at present.

Agriculture, today, is depressed; there is no money in it. Our leading agriculturists will testify to that, as

they did in the recent convention. Why is this? Is it on account of non-representation in legislation? Is it on account of unfavorable laws to protect them? Or is it on account of the lack of intelligence and sound reasoning in the sense of organizing and having a co-operative spirit? I believe it is principally the latter, and farmers must be educated so that they will act together, and that is what we should encourage here at the University.

As agricultural students, I believe, we can do more good to the state for her generosity in giving us the rights and privileges that we get here at the University than the students in any other course in the college, from the fact that every industry or profession depends directly or indirectly on agriculture. But we ought to begin the work here. The agricultural students should begin the practice of organization and working together, and we have no better means to do this than through our literary society. We should, with the number of students that there are in the agricultural course, make this society the best and most active literary society at the University, and I believe, in two or three years, when we will have our new agricultural building, our new literary hall and our increased number of agricultural students, we will have a society that will be equal, if not the best, in the college.

The society should, by all means, meet once every week, and it should be represented by speakers at the oratorical contests; it should be represented on the Makio board; also on the Lantern board and other such college affairs. Besides, a good literary training is essential to a college student; it gives to one that quality which no other training does, viz., to be one's self on the floor. In other words, it gives one self-possession, and that is in itself an education.

Anniversary of Townshend Society.

The Townshend Literary Society held its fourth anniversary meeting in Chapel Tuesday evening, February 11. The society is composed exclusively of agricultural students, and has a larger membership than any of the other literary societies of the University. The program rendered at the anniversary meeting was equal to any anniversary meeting ever held in Chapel. There was a good attendance, and those on the program responded with the usual characteristics of boys, rural bred—well prepared and with the determination to win. The program was as follows:

Song—Quartet.

President's Address—Philip L. Pfarr.

Memorial of Dr. Townshend—C. W. Burkett.

Instrumental Music—Mrs. D. A. Crowner.

Recitation: The Chariot Race—J. Hayes Bone.

Story—John F. Cunningham.

Song—Quartet.

Debate: Sweet, Murphy vs. Steward, Dunham—Question: Resolved, That the United States is justified in the stand she has taken in the Venezuela question.

Many of those present who were not acquainted with the society, expressed their surprise at the masterly manner in which each handled his subject. The prospects that are before the society now are bright.

By the erection of a new Agricultural building, the society will have a new hall, well furnished, and as the students are increasing each year, who knows but what this society will soon have not a rival in the University. The members are already working with new life and increased energy, and the fullest life is before it.

FEEDING AND FEEDS

**In Relation to Milk and Milking—
Kind of Food Does not Affect
the Taste.**

Although young in the business of dairying, I can not but notice many changes in American dairying. It has been said that when we make a change in one particular, everything along the line must be adapted to this change. Not recognizing this, this principle has caused a great deal of trouble in our dairying. I want to just mention one of these changes, and bring out the other changes which must be made in order to get the best results. This particular one, however, is not as plain as others.

When a little fellow, just able to follow my father, I remember well that the first duty of the morning was to feed the cows. Milking was done next, while the cows were yet eating their bright hay, sweet roots and grain feed. But, to do that now in this era of silage and high feeding would likely be attended with a considerable danger to the good quality of the milk. To make this plainer, allow me to relate a few actual experiences. The first is an experience of a dairyman who sells milk to a dealer in a large city. For some reason or other the dairyman changed the programme of feeding so that the ensilage was fed before milking, and the milking was done while the cows were eating. The next morning he received a telegram from the dealer: "Something the matter with the milk."

No change was made and the next day's milk was sent as before. Another telegram was received: "Milk badly off-flavor. Smells like cider. Don't want any more. Can't use it." Such recommendations to keep his milk at home made him look around for the cause. Since everything had moved along so smoothly before the change

in feeding, he naturally supposed the trouble was caused by this change. He began to milk before feeding and then his milk was received by the dealer with the old time welcome.

A similar experience happened at the Ohio State University dairy. The cows were milked in the morning and then turned out; ensilage and feed put in for the afternoon milking; when milked in the afternoon the silage was put in for the morning feed. The cows ate the ensilage and feed while the milking was going on. Our customers began to find fault with the milk, immediately after we commenced to feed the ensilage. We changed the programme of feeding and began to feed the ensilage both morning and evening before turning the cows out and just after the milking was finished. No more fault was found with the milk.

In the first instance the feeders probably helped do the milking. This would give a chance for particles of the silage to get into the milk from the hands and clothing of the milkers. Perhaps there is no doubt that this was one source of the infection, but in the second case there was but little chance of infection from the milkers, as they seldom helped about the feeding. When they did, they did not milk until the next evening, and always wore a special milking suit. While there always has been a great danger from off-flavored milk when feeding and eating has been allowed during milking, yet there is a greater danger when fermented food and ensilage is fed. In either case the feeder should not think of milking until he has removed all the dirt and dust from his person. A change of clothing goes a great way toward accomplishing this end.

D. A. CROWNER.

PRESIDENT CANFIELD

Talks on the State System of Education.

1. *What is a State system of education?*

It includes district schools or first grades of city schools, grammar schools, high schools, and work of the University; four departments of the State system, primary, grammar, high schools and the University. A large part of the students never go beyond the primary or grammar grades.

Our system needs organization and needs superintendents. Our school system ought to be so organized that one teacher could go from one school to another and take up the work just where the last one left off; so the superintendents could go from one city or county and find things the same as where he left; so the students that move from one school to another could have classes to enter just as they left at the other end.

Establish district schools first, then county academies, then city high schools, then the University on top.

2. *Is the State approaching the standard you have laid down?*

Yes and no. I will have to answer this question both ways.

This is a day of organization. Ohio has not quite recognized this fact in education.

The High school law has no supervision; changes one way and another; no regular law or relation between the high schools of different townships. Hardly like to say that you have a system where such vast differences of opinion exist.

3. *What is the proper relation of the State University to the State system of Education?*

I repeat that the University is the head of the State system. Induces the students to work for the top; they have a higher mark to work for.

Water cannot rise higher than its source. It is not a good plan to take teachers from the same school all the time. The University will furnish a body of good men to take charge of the State school system.

4. *Is our University in the relation to the schools as you have laid down?*

As I look around over the State, all the best men are facing towards the State University, with few exceptions; defects, are the heads of the teachers. I have at my desk 250 reports from various high schools of the State, most of the large cities. They are full reports in every detail. We answer every report with seven type-written pages. Without question, we are the head of the State system. No other school would dare make such a statement.

Notes from the Horticultural Department.

A fine collection of hyacinths are now being forced into bloom in the greenhouse. These fragrant and beautiful flowers are in great demand for home decoration. A small collection of scarlet carnations are also blooming quite freely.



The department has just received, through the kindness of Mr. George Townshend, of Gordon, O., some scions of a new apple named the "Winter King." This apple appears to have special merit as a good keeper. It is also said to be vigorous and productive. It will be given a trial in the University orchard.

Mr. K. L. Butterfield, superintendent of the Farmers' Institute of Michigan, and editor of the Grange Visitor, called at the University Feb. 22. He was especially interested in the Agricultural Department, and is in this State making a study of agricultural education and of our Farmers' Institute system.

The Horses of Europe.

The fourth of the special lectures before the Agricultural students, was given on February 27th, in the University chapel, by Hon. H. J. Booth, a prominent member of the Columbus bar, and an exceptionally good judge and lover of fine horses. He made a tour through Europe last summer, and while there visited all the prominent stables.

He paid especial attention, in his lecture, to the French and German coach horses, and spoke of all the prominent studs in both countries. He told of the particular pains taken by the French government to see that none but the best stallions were kept for service. He also talked of the Russian cavalry horse, the Hackney, Cleveland bays and English shire horse, and gave some very valuable statistics regarding the different breeds of horses in the several countries on the continent.

Mr. B. B. Herrick, of Wellington, Ohio, one of the best known cheesemakers in the country, gave two valuable and instructive lectures before the Agricultural and Special Dairy students on Feb. 21 and 22.

His subject for both lectures was Cheesemaking in Ohio. His first lecture was devoted to the kinds, methods of making, curing, etc., and these facts were impressed upon all present, by having several samples which had been made with different per cents of cream, cut and passed upon by all.

The second lecture was more on the financial side of cheesemaking, and he dwelt on the building of factories, curing rooms, machinery, the markets and marketing.

His lecture was very profitable to all interested, and made more so by his being a practical and successful cheesemaker, as well as a business man.

Authors Wanting Books Printed

should write us for Suggestions and Estimates. Books and Catalogues specialty. References Exchanged. We also give special attention to . . .

FINE CATALOGUES and

ENGRAVED WEDDING GOODS,

CALLING CARDS, ETC.

Call and see Samples at our office, on ground floor, 108 NORTH HIGH STREET, COLUMBUS, OHIO.

Hann & Adair.

PROF. S. P. TILLEY,

TEACHER OF

Dancing, Deportment, And PHYSICAL CULTURE.

Academy, S. E. Cor. Gay and High Street.
Residence, 1352 Hunter Street.

Private instruction given during the day in all the late Society Dances.

New classes will be opened Wednesday and Thursday.

GENTS, \$6.00 PER TERM. 12 LESSONS.
LADIES, \$4.00 PER TERM, 12 LESSONS.

Flowers and Plants.

**WEDDING AND FUNERAL
DECORATIONS A SPECIALTY.**

**Red Carnations and Roses
Always for Sale.**

Mrs. E. L. Charles,

Cor. Ninth Ave. and High St.,

COLUMBUS, - - OHIO.

